



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,827	09/09/2003	Wei-Chou Lan	251610-1010	2853
24504	7590	09/21/2006		
THOMAS, KAYDEN, HORSTEMEYER & RISLEY, LLP 100 GALLERIA PARKWAY, NW STE 1750 ATLANTA, GA 30339-5948				
			EXAMINER MCPHERSON, JOHN A	
			ART UNIT 1756	PAPER NUMBER

DATE MAILED: 09/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/658,827

Applicant(s)

LAN ET AL.

Examiner

John A. McPherson

Art Unit

1756

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3 is/are allowed.
- 6) ☒ Claim(s) 4-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of the species of claims 1-8 in the reply filed on 7/10/06 is acknowledged.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: Figure 3 does not include the reference signs **310** and **320**, as set forth on page 8, lines 3-5 of the specification.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to because Figures 4, 5 and 6 are incorrectly numbered.

Specifically, as set forth in the specification (e.g. see page 11, lines 5-13), Figure 5 is described as a schematic view of a reflective liquid crystal display comprising a thin film transistor **106**, a thin film transistor substrate **102**, liquid crystals **108**, etc. The drawing labeled as "Fig. 5" lacks all these elements, however they are all present in the drawing labeled "Fig. 4". Accordingly, it appears that the drawing labeled "Fig. 4" should be relabeled --Fig. 5--.

Similarly, as set forth in the specification (e.g. see page 11, lines 14-20), Figure 6 is described as a cross-sectional view of one preferred embodiment comprising a metal layer **212** formed on a substrate **402**. The drawing labeled as "Fig. 6" does not show this layer arrangement, however it is shown in the drawing labeled "Fig. 5". Accordingly, it appears that the drawing labeled "Fig. 5" should be relabeled --Fig. 6--.

Finally, as set forth in the specification (e.g. see page 9, lines 11-13), Figure 4 is described as lacking a tin oxide layer **214**, while the rest of the layers are the same as in another figure. However, since the drawing labeled "Fig. 4" is incorrectly labeled (see above), and the drawing labeled "Fig. 6" shows the layer structure of another figure (Figure 2) except for lacking a tin oxide layer **214**, it appears that the drawing labeled "Fig. 6" should be relabeled --Fig. 4--.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure

Art Unit: 1756

is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The abstract of the disclosure is objected to because it appears that the reference to "FIG 3" on page 9, line 13 of the specification is incorrect. Specifically, Figure 3 shows a reflectivity spectrum (e.g. see page 8, lines 1-13 of the specification), not a structure of a color filter (as is currently set forth at page 9, lines 9-13). Figure 2 shows a structure of a color filter which is otherwise identical to another figure except for the presence of the additional layer **204**, thereby fitting the description of the referenced figure in this portion of the specification. Accordingly, it appears that the reference to "FIG.3" at page 9, line 13 of the specification should be corrected to --FIG. 2--.

Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Each of claims 4-8 comprises the limitation “a thickness of the first power value is about ...”, however it is unclear how a power value can be described as having a thickness. This rejection could be overcome by deleting “a thickness of” before *the first power value* in line 3 of each of claims 4-8.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 5,502,595 discloses a color filter comprising a transparent substrate and two or more multilayer films of amorphous silicon deposited on the substrate, each film being different.

US 5,398,133 discloses a near-infrared optical filter comprising interleaved multilayers of low refractive index amorphous silicon nitride and high refractive index amorphous silicon.

US 5,039,204 discloses a color filter for a liquid crystal display having a black matrix with a three layer structure comprising a silicon nitride film, a light absorbing layer and a chromium layer sequentially deposited on a substrate.

Allowable Subject Matter

7. Claims 1-3 are allowed because in a structure of a color filter for use in a liquid crystal display comprising a substrate, a silicon nitride layer grown at an RF power having a first power value, and an amorphous silicon layer on the silicon nitride layer, the prior art does not teach or suggest the structure further comprising an indium tin oxide layer on the substrate, an n-type silicon layer located on the amorphous silicon layer, and a metal layer on the n-type silicon layer, as set forth in claim 1 of the present invention.

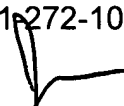
8. Claims 4-8 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John A. McPherson whose telephone number is (571) 272-1386. The examiner can normally be reached on Monday through Friday, 8:00 AM to 4:30 PM.

Art Unit: 1756

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on (571) 272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



John A. McPherson
Primary Examiner
Art Unit 1756

JAM
9/7/06